

Meeting New Jersey's Growth Challenge

*A Transit
Plan for
the 1990's*

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NJ TRANSIT

June 1987

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Jerome C. Premo, Executive Director



TO: NJ TRANSIT Board of Directors

FROM: Jerome C. Premo

DATE: June 23, 1987

SUBJECT: A Transit Vision: Meeting New Jersey's
Growth Challenge

New Jersey, the nation's most densely populated state, must have a strong, balanced highway and public transit system if our economic health is to continue to flourish. During its few years of existence, NJ TRANSIT, our statewide public transit corporation, has reversed a decades-old trend of fewer and fewer riders on our buses and trains. Transit ridership is growing. Needed, but long-ignored capital investments in our existing system -- new trains, locomotives, buses, and bus and rail infrastructure--have been made.

Transit in New Jersey is once again thriving. Not only is service better, with on-time rail performance consistently above 90%, but a new mood of optimism exists about both how transit can meet the mobility needs of the new New Jersey and help shape more orderly development and rejuvenation of our urban centers.

That's why this report is both timely and important. We at NJ TRANSIT are proud of our accomplishments during the past few years and we are determined to continue our efforts to upgrade the bus-rail system we already have. But we also believe that we can make huge improvements in our existing system, and make New Jersey a much better place in which to live and work in the process.

Just try to imagine the gridlock in our State in only 13 years, in the year 2000, if we fail to embrace an aggressive transit development program needed to complement planned highway investments. We want to tackle the trans-Hudson transportation crisis head-on. We want to speed up bus service and make it more dependable. We want to move people around New Jersey on our invaluable rail lines. We want to connect rail lines built by competing private railroads in the 19th century and transform them into a coordinated public transit system designed to meet New Jersey's needs in the 21st century.

Our program is designed to serve and to enhance New Jersey's development and urban revitalization efforts--along the Hudson Waterfront, in the Meadowlands, in cities along our busy rail lines. This program is a New Jersey program. The plan we have outlined can serve many travel needs of our urban and suburban communities, and provide travel choices in many markets in many ways. In particular,

we are anxious to work with suburban employers to make the transit system work better for them and work better for us. We will be reaching out to corporate New Jersey to help us create the links between transit and suburban jobs that are necessary for a healthy economy and to reduce the burdens on our highway system.

While costly, this program is affordable: a combination of federal, state, and other sources of capital funding from the Port Authority of New York and New Jersey, the New York Metropolitan Transportation Authority (MTA) and private developer interests must be assembled. At the Federal level, The Surface Transportation Assistance Act of 1987 reauthorized the federal transit program through 1991. We shall have to compete with other areas from around the nation for limited Federal discretionary funds, to supplement funds already earmarked for New Jersey by formula in this Act. I'm confident that we shall get our fair share of Federal funds during the next four years--in the range of \$650-700 million--because we have spent past (UMTA) funds wisely and because our program has great technical merit.

I recently received a letter from UMTA Administrator Ralph L. Stanley that included the following:

"I must commend New Jersey Transit for taking on an extremely complex problem, developing a comprehensive and sound analysis approach and presenting the results in a clear and understandable fashion. They deserve the highest praise and I hope you will extend my congratulations to them.

I also want to assure you that the Urban Mass Transportation Administration looks forward to working closely with New Jersey Transit as the projects you ultimately select proceed through their development process into implementation."

Port Authority funding is available, as a result of the recent bi-state agreement agreed to by Governors Kean and Cuomo and adopted by the Port Authority's Board of Commissioners. Because our recommended improvements will directly affect Rockland and Orange County commuters travelling through New Jersey to New York, I am confident that we can secure MTA funding for portions of our program. Finally, I believe that we will secure private sector involvement in such projects as the Secaucus Transfer.

But we can't say the same for State funds. NJ TRANSIT's program for the next decade will not and cannot be implemented aggressively and promptly unless the Transportation Trust Fund is renewed. We must have multi-year funding for projects which take many years to design, engineer, construct, test and then operate. We try to carry out our business in a business-like fashion; clearly, the proper business approach is to renew the Trust Fund.

June 23, 1987

In this report, we commit to carrying out a comprehensive examination of South Jersey transit needs, with a key focus on uses for existing but abandoned rail rights-of-way. If train service on these lines is uneconomical, we should explore retaining them for possible future use, and perhaps use them for recreational bikeways in the interim.

We want to apply the analytical techniques we used in developing transit solutions in northern New Jersey in a thorough review of cost-effective transit solutions in the southern part of our State.

I'd like to conclude by asking, and answering, these basic questions:

Question: Does this Transit Program for the 1990's make sense? Is it needed?

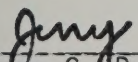
Answer: It is desperately needed. It is balanced: bus and rail improvements are both needed. It will create a genuine transit system within New Jersey: all 10 rail lines will be interconnected. It is a forceful, positive response to mobility needs in New Jersey as well as to the trans-Hudson crisis.

Question: Can we afford it?

Answer: Yes, if we want to. Federal funds are authorized, and we can make a compelling case for hundreds of millions of dollars in federal aid in the next 4 years alone. But we cannot implement this program without long-term, assured State funding.

As members of our Board of Directors, you have challenged us to face the future while solving today's problems. You have given us policy direction, have evaluated our work and have encouraged the broadest possible process for involving other groups in developing these recommendations.

So here is our report. In my view and that of the New Jersey Transit staff, the future looks bright and exciting. We eagerly look forward to translating this vision into a better New Jersey.


Jerome C. Premo
Executive Director

Attachment

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CHAPTER I

PUBLIC TRANSIT TO DATE

As NJ TRANSIT looks to the 21st century and as economic growth in New Jersey continues, major increases in the demand for public transit in New Jersey will occur. New Jersey's mix of urban and suburban development demands a range of transportation services to support its continued economic growth. New Jersey can benefit from a careful match of transportation services, such as commuter rail, feeder bus, shared ride taxis and exclusive bus lanes, to its different geography and expanding travel needs. Recognizing these broad opportunities, this report focuses on those elements of the state's transportation system serving northeastern New Jersey and its trans-Hudson travel needs.

AN HISTORICAL PERSPECTIVE

To understand the role of transit in New Jersey's future, one must first understand its role in the past. Prior to the invention of the "horseless carriage," urban America's mechanized transportation system consisted of trolleys serving urban and suburban communities and intercity passenger and freight railroads. The invention of the automobile and its bigger cousins, the motor bus and truck, changed this system, at first slowly, and then much more rapidly after World War II. The automobile made settlement possible away from the local trolley line and rail stop, stretching the suburbs in all directions and out from the largest cities; buses replaced the less flexible trolleys, and the truck, aided by the interstate highway network, became an equal competitor with rail for freight traffic.

This course of events occurred in New Jersey much as it did elsewhere. By the 1960's the trolleys were gone except for the Newark City Subway. The railroad network, with declining traffic, was pruned to some one dozen higher density lines, most still aligned to serve the disappearing needs of freight traffic to the Hudson or Delaware Rivers. The denser urban areas were served by local buses in place of trolleys; new bus lines to New York and Philadelphia were created to serve the new suburban-to-city markets which the railroad had never been designed to serve. Throughout the state, the wide access and freedom provided by the private automobile was supported by new highways and toll roads.

To be sure, there were transit bright spots. In the 1960's in South Jersey, the PATCO high speed line from Philadelphia to Lindenwold through Camden was built, in part on old rail rights of way, to connect newer suburbs to Camden and Philadelphia. In New York City, the Port Authority Bus Terminal, constructed in 1950 and expanded in the late 1970's, removed suburban New Jersey buses from Manhattan

streets. In 1970, an exclusive bus lane was established on the approach to the Lincoln Tunnel to enable Manhattan bound buses to reliably bypass auto and truck congestion. In the late 1960's and early 1970's the PATH rapid transit system, serving Hoboken, Jersey City and Newark and linking most New Jersey commuter rail lines to Manhattan, was modernized by the Port Authority of New York and New Jersey.

The economic downturn in the Northeast in the early 1970's did not help transit. Manhattan and Philadelphia and much of urban New Jersey lost up to 20 percent of its jobs, with the manufacturing sector particularly hard hit. Traditional transit markets were hurt, and ridership declined. The old railroads, recognizing declining profits, disinvested in passenger facilities. The renewal of rail freight operations was institutionalized by the formation of Conrail from bankrupt companies in 1976. Likewise, most of the bus industry, still entirely in private hands, found little profit in providing bus service, particularly within local urban areas in New Jersey. The state established a subsidy program to keep bus and rail service operating, but with a substantial reduction in the communities served and service levels. Little funding was available to renew infrastructure and replace aged buses and trains.

NJ TRANSIT IS FORMED

Recognizing these circumstances, the New Jersey State Legislature formed the New Jersey Transit Corporation in 1979. The transit agency purchased Transport of New Jersey, the largest private bus operator in the state, in October 1980. In 1982, the U.S. Congress required Conrail, still providing passenger rail services under contract with states in the Northeast, to focus entirely on freight operations. As a result, NJ TRANSIT assumed operations of the commuter rail system in New Jersey in January 1983.

NJ TRANSIT's focus during its first seven years was on upgrading a badly deteriorated bus and rail system. Old buses and out-of-date rail cars were replaced with new buses and trains. Obsolete maintenance facilities were upgraded or replaced. Train stations and bus terminals were rehabilitated. Also, the Morris and Essex lines were modernized and re-electrified by the New Jersey Department of Transportation. Electrification of the North Jersey Coast Line was extended to Matawan, and is now being extended to Long Branch. Reversing a decades-old trend, ridership and on-time performance took an upswing. In the 1983-1986 period alone, bus ridership grew 10 percent; rail ridership increased 29 percent and has climbed at the same rapid pace during the first five months of 1987.

TRANSPORTATION TODAY

The more recent economic growth and development in New Jersey has had a profound impact on transit in the state and will continue to do so. Understanding recent growth and future trends is essential to

appreciating transit's future role in the state's prosperity. In New Jersey, the well documented high suburban growth rates of the post World War II era abated considerably in the early 1970's. This was due in large measure to the economic downturn in the manufacturing sector of the economy and the high job losses felt by New Jersey's big city neighbors, New York and Philadelphia.

By the mid to late 1970's, New Jersey's economic rebound began, shifting from a largely manufacturing base to a service economy led by high technology, financial services, and other "office" industries located largely in the state's suburbs and accessible to the expanding highway network. This coincided with the rebound of the Manhattan and Philadelphia job markets, the building of the Meadowlands Sports Complex and the licensing of casinos in Atlantic City. More recently the emergence of the Hudson River Waterfront has begun to transform New Jersey's "gold coast," and signs of revival of the state's biggest cities, including Newark, are evident.

Across the Hudson, the increase in New York jobs took a new twist; no longer were the new jobs in Manhattan being filled almost exclusively by New York City residents. Nor were traditional Long Island and Westchester "bedroom" communities sending as many commuters to Manhattan. Housing growth in those suburbs slackened. In place of these suburban job holders, the housing growth in northern New Jersey and Rockland and Orange counties in New York, combined with the "white collar" skill mix of the west-of-the-Hudson labor force, increased dramatically the number of workers commuting across the Hudson each day. It is now estimated that New Jersey workers in Manhattan bring home more than \$7 billion in wages annually.

The growth in this commuter market did not happen without an impact on a transportation system never truly geared to the Manhattan commuter in the first place. The auto commuter to Manhattan must use one of three crossings: the Holland Tunnel, Lincoln Tunnel or the George Washington Bridge. None offers a congestion-free trip. As recently as the late 1970's, peak period delays on these crossings were less than 15 minutes at the tunnels and five to ten minutes on the George Washington Bridge. By 1983, these delays reached 20 to 25 minutes at the two tunnels, and 15 minutes at the George Washington Bridge. Auto commuters can expect these delays to worsen with delays approaching, and often exceeding 30 minutes on a regular basis. Adding to these delays will be traffic growth in the Meadowlands and to the Waterfront. Financial, physical and environmental factors make it unlikely that these delays will ever be reduced by added auto capacity across the Hudson into Manhattan.

Until recently, for the bus commuter to midtown Manhattan, the exclusive bus lane (XBL) on the approach to the Lincoln Tunnel made bus travel reliable. This one bus lane--operated inbound during the

morning peak period on a lane used for outbound traffic the rest of the day--has proved to be so successful that it is backed up regularly. With the lane's congestion, 65,000 bus passengers now share the frustration of 17,000 people in autos and trucks trying to reach midtown Manhattan each morning.

For Hudson County travelers, heavy reliance on the PATH system has led to extreme crowding, as new residents with a stronger Manhattan orientation settle in communities previously populated by groups with more dispersed job locations. Growth on the commuter rail system connecting to PATH has added to overcrowding.

The railroad commuter is faced with a variety of travel choices, depending on residence and workplace in Manhattan. Those traveling from the central New Jersey counties of Union, Middlesex, Somerset, Mercer, and Monmouth use one of three rail lines, the Northeast Corridor, North Jersey Coast or the Raritan Valley line. If headed for midtown the trip is direct to Penn Station. For Raritan Valley and some Coast Line passengers, such a trip involves a train change in Newark. If headed for lower Manhattan, the commuters on all three of these lines must switch to the overcrowded PATH trains running between downtown Newark and the World Trade Center.

Rail commuters in the northern and western counties of Bergen, Passaic, Morris and Essex, and Rockland and Orange in New York State, face different choices. They can take one of seven rail lines or branches to Hoboken. If destined for midtown Manhattan, they make a crowded and difficult transfer to a PATH train to midtown, stopping five times in Manhattan en route to 33rd Street. This trip is sufficiently circuitous and arduous that few make it, choosing autos and buses in larger numbers. If destined for lower Manhattan, they must transfer to jammed PATH trains to the World Trade Center. In summary, the rail commute is not easy for most New Jerseyans, largely because most must make a difficult transfer at some point in their trip to crowded PATH trains at Newark or Hoboken for final connections to midtown or downtown Manhattan.

ACTIONS TO DATE

NJ TRANSIT and other agencies have responded to the recent growth with transit improvements. Over the last few years, NJ TRANSIT has added considerable seating capacity and commuter parking spaces to both the bus and rail system. The Port Authority will be lengthening PATH platforms to accommodate longer trains, purchasing additional cars and, most significantly, reinstituting ferry service between Hoboken and the World Trade Center in lower Manhattan. The effect will be to significantly relieve crowding for those PATH passengers destined to lower Manhattan. To feed the ferry, help relieve PATH crowding and improve access to the Waterfront, NJ TRANSIT will construct a

"Waterfront Connection" which will allow travelers using the three rail lines not now serving Hoboken to reach the Hudson River Waterfront.

Looking ahead, NJ TRANSIT and the New Jersey Department of Transportation are committed to construction of a new 15 mile waterfront light rail and busway transportation system to serve the mushrooming "gold coast." Increasing use of Newark's Penn Station as a transfer point has prompted NJ TRANSIT to search for ways to improve passenger circulation there. The two state transportation agencies are also working together to define transit services for Newark Airport, the Meadowlands and the booming Route 1 Corridor between New Brunswick and Trenton. In counties, particularly in western and southern locations experiencing rapid suburbanization, NJ TRANSIT is looking at the revival of rail service on underused rail rights-of-way, with the thought of preserving the lines for future use.

In South Jersey, the Atlantic City rail line between Atlantic City and Philadelphia is under construction and will be opened in 1989. The Atlantic City line's implementation also provides NJ TRANSIT with the opportunity to seek new and creative ways to provide transit in South Jersey using the PATCO high speed line, the new railroad and the system of buses already in place to alleviate growing traffic problems. Recognizing this, NJ TRANSIT intends to focus the next phase of its planning efforts in South Jersey. Working with an advisory committee of business, civic and commuter interests, the planning process used to seek the best solutions for northern New Jersey's trans-Hudson problem will be applied and directed to South Jersey. A plan for action in South Jersey will result, reflecting South Jersey's unique needs.

CHAPTER II

REGIONAL GROWTH TRENDS: WHAT DOES THE FUTURE HOLD?

With expected growth, the current trans-Hudson situation can only worsen. In 1983, responding to the mounting trans-Hudson problem, NJ TRANSIT and the Port Authority of New York and New Jersey undertook a joint study of demographic and regional trends and their impact on trans-Hudson travel to understand the future travel needs of New Jersey commuters.

By first analyzing the region's economy, the Port Authority was able to project job and housing growth in the New York-New Jersey metropolitan region (See Table 1). Population is expected to grow by 525,000 in the region between 1985 and 1995. Of this, well over half will accrue to New Jersey in sharp contrast to past trends, when only 30% of the region's population was found in New Jersey. The disproportionately high share of housing growth in New Jersey is a reflection of strong market forces. The price of new homes has skyrocketed in the suburbs surrounding Manhattan, especially east of the Hudson River. While housing prices have increased substantially in the New Jersey sector as well, New Jersey suburban housing remains relatively affordable and available compared to competing suburban areas in New York State east of the Hudson River.

TABLE 1
GROWTH IN THE REGION
(1985-1995 In Thousands)

	<u>PEOPLE</u>	<u>SHARE OF GROWTH</u>	<u>JOBS</u>	<u>SHARE OF GROWTH</u>
New York City	134	25%	177	41%
New York Suburbs	93	18%	37	9%
Northern New Jersey Counties	<u>298</u>	<u>57%</u>	<u>212</u>	<u>50%</u>
TOTAL	525	100%	426	100%

Source: Port Authority of New York and New Jersey

The job growth picture is similar: Of the 426,000 new jobs projected for the New York - New Jersey region, half will be located in New Jersey, again disproportionately higher than in the past. Meanwhile, New York City, particularly Manhattan, will continue to grow and the number of New Jersey residents holding new jobs in Manhattan will grow. In 1980, only 10 percent of Manhattan job holders resided west of the Hudson River. Now one in three new job holders cross the Hudson River from New Jersey each day to work in Manhattan. The growth within New Jersey results in an increase in intra-New Jersey travel to work, schools and services.

PEAK TRANSIT DEMAND

From the population and job projections established by the Port Authority in 1983, New Jersey's growth trends translate into 58,000 more peak period trans-Hudson commuter trips in 1995 between northern New Jersey and New York than were made in 1983. To date, these growth trends are on target. While the Port Authority has yet to project beyond 1995, no doubt growth will continue. A conservative estimate beyond 1995 to 2005 suggests another 26,000 trans-Hudson commuter trips. This 42% growth in peak transit demand by 2005 presented NJ TRANSIT with a target and a significant challenge in its planning work.

Tables 2 and 3 display current peak period trans-Hudson commuter travel, split between autos and transit for each major northern New Jersey travel corridor. The tables illustrate the different geographic issues that must be addressed in responding to the trans-Hudson situation. For example, improvements are needed for in the northern suburbs where a high auto share results from poorly positioned transit services. Direct midtown rail access from this corridor is often either awkward or non-existent, and bus service is often slow or unreliable due to congestion on the Route 495 exclusive bus lane. This situation is even more acute in eastern Bergen County where there is no rail service at all and the bus service is slowed by the absence of major north-south roadways. The travel needs of commuters from Monmouth and Ocean counties are also of major interest. These fast growing counties are served by the North Jersey Coast Line rail service but that line is poorly positioned to serve large fast-growing areas of the two counties.

TABLE 2
ORIGIN OF TOTAL
TRANS-HUDSON TRIPS AND EXPECTED GROWTH

	<u>TOTAL TRIPS 1983</u>	<u>GROWTH IN ALL TRIPS 1983-1995</u>	<u>GROWTH</u>	<u>TOTAL TRIPS IN 1995</u>
Hudson County	35,500	12,700	36%	48,200
Northern Counties	104,700	22,800	22%	127,500
New Jersey	88,900	18,700	21%	107,600
New York	15,800	4,100	26%	19,900
Central Counties	40,900	13,800	34%	54,700
Monmouth/Ocean Counties	10,300	5,600	54%	15,900
Northwestern Counties	<u>6,600</u>	<u>3,100</u>	<u>47%</u>	<u>9,700</u>
TOTAL	198,000	58,000	29%	256,000

Note: Northern counties are Bergen, Passaic, Morris, Essex in New Jersey; Rockland and Orange in New York, Central Counties are Union, Somerset, Middlesex and Mercer Northwestern Counties are Sussex, Warren, and Hunterdon, and counties in Pennsylvania.

Source: NJ TRANSIT and Port Authority Surveys.

TABLE 3
ORIGIN OF TRANS-HUDSON AUTO TRIPS

	<u>TOTAL TRIPS 1983</u>	<u>NUMBER OF TRIPS BY AUTO</u>	<u>AUTO SHARE OF TOTAL TRIPS</u>
Hudson County	35,500	5,700	16%
Northern Counties	104,700	46,000	44%
New Jersey	88,900	36,500	41%
New York	15,800	9,500	60%
Central Counties	40,900	6,500	16%
Monmouth/Ocean Counties	10,300	1,800	17%
Northwestern Counties	<u>6,600</u>	<u>3,400</u>	<u>50%</u>
TOTAL	198,000	63,400	32%

Note: Northern counties are Bergen, Passaic, Morris, Essex in New Jersey; Rockland and Orange in New York, Central Counties are Union, Somerset, Middlesex and Mercer Northwestern Counties are Sussex, Warren, and Hunterdon, and counties in Pennsylvania.

Source: NJ TRANSIT and Port Authority Surveys.

CHAPTER III

THE PLANNING PROCESS: ANALYTICAL TOOLS

Having identified a critical transportation problem and a framework for its analysis, NJ TRANSIT can offer solutions that will work for New Jersey. These initiatives are designed to reach the major objective of expanding services to the full physical and operational capacity of the available rail and bus infrastructure by making investments in strategically located connections, transfers, extensions and modifications of existing service in the context of regional market growth and demographic changes.

GUIDING OBJECTIVES

In launching its planning program to meet expected growth, NJ TRANSIT established goals to guide analysis of the proposed bus and rail investments. They are:

- 1) Maximize the capacity of the existing bus and rail systems to serve the projected growth through 1995 and to position transit to capture the added growth through and beyond 2000;
- 2) Provide a system attractive enough to fill the available and expanded capacity by speeding the trip, making it more reliable, eliminating inconveniences and expanding geographic coverage and service frequency;
- 3) Provide transit services to new markets in New Jersey, supporting development and redevelopment in Newark, the Waterfront and the Meadowlands;
- 4) Attract auto users to transit to relieve the highway system for use by those who cannot use transit and to provide highway space to serve other development areas; and,
- 5) Operate an efficient and cost-effective system.

CRITERIA FOR PROJECT SELECTION

Applying these goals, NJ TRANSIT developed an extensive inventory of potential bus and rail projects or investment options, many of which have been discussed for decades. A careful study was done to identify other commuter rail and bus improvements that would provide the additional travel capacity needed. These projects formed the pool of

potential investment and service options worthy of analysis and public discussion.

NJ TRANSIT organized these options geographically, since New Jersey's growth patterns differ by area, and the range of available transit improvements in each travel corridor vary. The travel corridors by county include Bergen, Passaic, Rockland and Orange counties to the north, Morris and Essex counties to the west, Union and Somerset counties to the southwest, Middlesex and Mercer to the south and eastern Middlesex, Monmouth and Ocean counties to the southeast.

The aim in each major study corridor was to maximize the value of existing rail and bus system investments, and target transit improvement projects that would guarantee the greatest benefit relative to cost. In each geographic corridor, NJ TRANSIT isolated the project or projects that best met this standard, and combined them into a program so they can be mutually supportive, likely tap major new markets, orient emerging development toward transit services, and improve transit's overall financial performance and efficiency.

The project studies were organized to produce quantitative measures of financial performance, passenger benefits and regional impacts, as well as the qualitative risks and benefits of each project. These qualitative and quantitative factors were applied against the full range of projects under consideration, asking questions such as:

- 1) **Cost Effectiveness and Efficiency:** Would a project save or cost money overall? Would a project strengthen or weaken NJ TRANSIT's economic position?
- 2) **Travel Benefits:** Would a project provide better travel time? Would a project avoid inconvenient transfers?
- 3) **Regional Benefits:** Would a project accommodate growth in a region? Would a project improve the transit market share in a corridor by attracting people from cars? Would a project provide greater opportunity to access, by transit, more of New Jersey?
- 4) **Economic Growth:** Would a project provide new access to developing or redeveloping areas, increasing the success of coordinated land use? Would a project support a growth area?
- 5) **Risk of Completion:** Would a project present complex engineering requirements? Would a project require unproven technology? Would a project take a long time to complete? Would a project represent an exhaustive or complicated, therefore costly, effort relative to another option serving

the same geographic area? Would a project be difficult to operate? Would a project be overly dependent on other agencies or institutions for its success?

Each project was analyzed on its own merits, and combined with other projects to establish the best complementary package. To help define travelers' likely behavior, NJ TRANSIT undertook a state-of-the-art statistical market research effort aimed at identifying travelers' perceptions of key features of the travel experience -- time, degree of stop and go, express versus local service, overall reliability, quality of surroundings, flexibility to travel at different times of day or by different routes -- and the value these qualities have in determining how commuters choose to get to work. This work was linked with the results of statistical predictions of travelers' behavior based on actual past travel patterns, to help make informed decisions about likely market responses to proposed improvements.

CHAPTER IV

RECOMMENDED SOLUTIONS: AN OVERVIEW

NJ TRANSIT has identified a far-reaching program of rail and bus improvements for northern New Jersey. These projects will have broad benefits for intra- as well as inter-state travelers, and are particularly opportune in their use of existing infrastructure to meet current and future travel needs. The program sets an agenda for action that will position public transit to support New Jersey's growth and development.

NJ TRANSIT is seeking investments that will increase transit capacity, speed and convenience, reduce highway congestion, support development and produce a system that is efficient and cost-effective to operate. The transit investments which emerged from this rigorous process were the most favorable within each geographic area, and provide the most benefits to existing and new riders. The representatives of the many Advisory Committees to the planning program contributed insights during the review process which helped to confirm the best mix of projects. Appendix A provides a list of the individuals and organizations represented on each committee and we appreciate their significant contributions to NJ TRANSIT's planning program. This cooperative effort, with key audiences and technical partners, assured that the data analysis and project evaluation would be guided by practical considerations. Modernizing and strengthening the transit network through these investments positions NJ TRANSIT to meet New Jersey's growth challenge.

The following list of bus and rail projects will strengthen New Jersey's transportation network, improving access to midtown Manhattan, supporting growth and development, reducing traffic congestion and travel delay and introducing new travel opportunities by transit within New Jersey now possible only by car. By maximizing the capacity of bus and rail terminal and delivery facilities, and selecting options from all major geographic areas, up to 26,000 more bus riders and 20,000 more rail riders will be accommodated in the peak morning commute period. Furthermore, up to 92,000 morning bus riders will benefit from a more reliable and speedier trip, and 25,000 rail riders will share the benefits of improved rail services. The recommended package of connections, transfers and busway improvements greatly enhances the attractiveness of off-peak travel, potentially servicing some 14,000 more daily riders with off-peak travel needs and with New Jersey destinations.

The list of selected projects is not preclusive. Other improvements not currently offered for implementation will be retained for future consideration, as continued growth and development further defines New Jersey's unfolding travel needs. Those improvements considered essential to any future scenario are briefly summarized below, with detailed descriptions and benefits further developed in the following chapters:

COMMUTER BUS IMPROVEMENTS

New Jersey commuter buses are increasingly slowed by regional highway traffic congestion, and have begun to outgrow available space in Manhattan and at the Port Authority Bus Terminal (PABT). To address the capacity issue, a **PORT AUTHORITY BUS TERMINAL CAPACITY UPGRADE** will add passenger platforms and redefine bus storage and staging to speed buses and meet future capacity requirements. With increased space at the terminal, a number of highway relief measures are envisioned to bring buses to the PABT without delay. A **SOUTH BUSWAY** -- a dedicated bus-only lane along the Waterfront -- will be constructed to ease bus travel from the south. The project's first phase will stretch from the Turnpike to the Lincoln Tunnel, relieving the Route 495 XBL. A second phase will extend this improvement across the Meadowlands to the Turnpike through the **BERGEN ARCHES** in Jersey City. As part of the Waterfront transit system, a **NORTH HUDSON BUSWAY** will be constructed along the Palisades Cliffs as far north as West New York. The improvement will be extended to Edgewater as a second phase, coupled with dedication of the **WEEHAWKEN TUNNEL** for buses and light-rail vehicles to the Waterfront and the Lincoln Tunnel. To give buses an edge on regional traffic congestion, **PREFERENTIAL BUS TREATMENTS** will be implemented at toll plazas and key highway interchanges. These improvements will increase the speed and reliability of bus service as ridership grows.

COMMUTER RAIL IMPROVEMENTS

New Jersey's commuter rail system will benefit from expansion of **PENN STATION NEW YORK**, which will increase up to 30 the number of peak-hour commuter trains to midtown Manhattan, allowing NJ TRANSIT to offer major new commuter services. The **SECAUCUS TRANSFER** -- a significant new transfer station creating a crossroads in the Hackensack Meadowlands -- will give passengers from Main, Bergen and Pascack Valley Lines service to midtown, at the same time providing intra-Jersey travel opportunities now available only by car. A restored **WEST SHORE RAIL LINE** -- where no passenger service exists today -- will extend the benefits of the Secaucus Transfer to commuters in eastern Bergen and Rockland counties. The counties of Morris, Essex, Union, Passaic and Somerset will enjoy significant new travel opportunities with implementation of the **KEARNY CONNECTION**, providing direct midtown service and avoiding a transfer at Hoboken to PATH. With the

MONTCLAIR CONNECTION at Bay Street, the benefits of the Kearny Connection -- as well as the additional advantage of rail access to downtown Newark at the Broad Street Station -- will be extended to Boonton Line corridor travelers. Travelers on the Raritan Valley Line will get more reliable service as a result of the **HUNTER TOWER IMPROVEMENT**, which will eliminate unpredictable delays riders now experience. To keep pace with already pronounced ridership increases, the **NORTHEAST CORRIDOR/NORTH JERSEY COAST LINE SERVICE EXPANSION** will provide more parking and capacity. **MONMOUTH/OCEAN/EASTERN MIDDLESEX PUBLIC TRANSIT IMPROVEMENTS** will bring service closer to rapidly emerging residential areas, supporting and orienting new development to transit.

INCREASING THE PARKING SUPPLY

Prior to a fuller review of these project recommendations, it is critical to note the role which parking supply must play in facilitating commuter access to transit in New Jersey. Concentrated effort will be required, especially with local communities, in the search for and supply of adequate parking facilities to serve current and future riders on the transit system. The growth occurring in the densely populated travel corridors and the expected shift of travelers from the auto, will add to the existing critical need to acquire valuable land for parking. Parking availability is considered integral to and a strong measure of the success of the transit system. Based on the timing and phasing of the projects outlined in this section, additional parking must be considered a prerequisite to ensure the recommended bus and rail investments meet demand.

Provision of parking is an absolute requirement and, if NJ TRANSIT is unable to establish spaces in a timely fashion, with local and municipal support, the value of the investments will be diluted. NJ TRANSIT is committed to delivering this requirement and has already mounted an aggressive policy framework to achieve a comprehensive parking program throughout the state. Review and detailed documentation of when and where more than 20,000 new spaces are required is being prepared, and will be advanced through NJ TRANSIT's capital plan. NJ TRANSIT recognizes that the provision of parking is critical to the success of the bus and rail investments. Every avenue will be pursued to ensure municipal support for parking investments which feed the transit system.

CHAPTER V

A PLAN FOR BUS INVESTMENTS

One-third of New Jersey's Manhattan-bound commuters depend on buses which travel through the Lincoln Tunnel to the Port Authority Bus Terminal to get to work in midtown each day. Market research has indicated that bus commuters' primary concern is an express service that guarantees arrival as scheduled. These travelers converge on the Lincoln Tunnel in roughly equal numbers from the north, west and south, carrying commuters from every one of New Jersey's 13 northern counties. As their ranks have grown, however, these 65,000 daily commuters have increasingly encountered frustrating and time-consuming delays and congestion, as bus traffic has begun to overwhelm highway approaches to the Lincoln Tunnel and the terminal itself.

Two key bottlenecks within the trans-Hudson bus system have emerged as critical which, if not relieved, will preclude further ridership increases while subjecting bus riders to unreliability, inconvenience and time loss. One is the Port Authority Bus Terminal itself, where some 1,600 buses drop passengers each morning in the world's busiest bus facility. Increases in bus travel have put the terminal, built in the 1950's and enlarged in the 1970's, near its capacity.

Relatively low-cost solutions are available to relieve congestion within the PABT -- adding platforms, redefining bus storage and staging areas and implementing traffic control measures. These remedies are joint obligations of the Port Authority and bus operators; if cooperatively implemented they will provide "room to grow," and, more importantly, ensure rapid, reliable and efficient service into and out of Manhattan for up to 92,000 New Jersey bus travelers who may use the system by 1995.

The second bus system bottleneck is the Route 495 exclusive bus lane (XBL) which buses use to access the Lincoln Tunnel. Map 1 shows the approaches to the Lincoln Tunnel highlighting the XBL. When operating properly, the XBL allows bus travelers to quickly and comfortably bypass in only a few minutes two miles of stop-and-go auto and truck traffic delayed by as much as 30 minutes. As the number of buses attempting to use the lane has risen beyond the lane's capacity, the same stop-and-go conditions are developing for bus travelers as exist for the autos the XBL was designed to bypass.

NJ TRANSIT and its sister agency, the New Jersey Department of Transportation, have identified short and longer-term projects that will provide alternative routes to the tunnel. Dedicated busways -- from which auto and truck traffic will be excluded -- from north and south of the Lincoln Tunnel, implemented in two phases and forming part of the Hudson

Map 1

EXISTING BUS APPROACHES TO LINCOLN TUNNEL



River Waterfront transit system, will give bus travelers fast, reliable, even scenic routes bypassing mounting traffic congestion in communities along the Palisades Cliffs and on congested county and state roads. Map 2 illustrates these bus system investments; Table 4 gives the number of daily travelers who would benefit from their implementation. Each project is described below.

SOUTH BUSWAY

A South Busway along the New Jersey Waterfront between the Turnpike and Lincoln Tunnel will give bus travelers now dependent on the overused Route 495 XBL fast, efficient and reliable service from Union, Somerset, Middlesex, Mercer, Monmouth and Ocean counties. The busway will allow bus riders to bypass traffic, bringing them into the Port Authority Bus Terminal without delay, and along the rapidly developing Hudson River Waterfront on a fully reserved right-of-way. The project's first phase envisions construction of the busway between the Hudson County Extension of the Turnpike and the Lincoln Tunnel.

A second phase, contingent on construction of ramps to and from either the Turnpike's eastern or western spurs, would extend the reserved right of way across the Meadowlands to the Turnpike mainline, via a permanently dedicated road for buses through the Bergen Arches, on unused rail rights of way traversing Jersey City.

NORTH BUSWAY

Complementing and balancing the South Busway, NJ TRANSIT's plans include a busway system from the north, further relieving the existing XBL. As part of the Hudson River Waterfront transit system, a bus-only facility will be constructed along the Palisades Cliffs as far north as West New York, as the project's first phase, freeing local and county Palisades Cliffs communities from the interference of trans-Hudson buses and giving trans-Hudson bus commuters clear access to the Lincoln Tunnel each morning. This North Hudson Transitway will provide fast, reliable service for bus travelers from communities along the Palisades Cliffs and in Bergen County.

A second phase extends the North Busway to Edgewater and dedicates the Weehawken Tunnel -- now a rail freight tunnel through the Palisades Cliffs under Weehawken and Union City -- for buses and light-rail vehicles to the Waterfront and the Lincoln Tunnel. Provision of the Weehawken Tunnel will further ease bus travel for riders from Bergen, Passaic and Rockland counties, guaranteeing high-speed, reliable daily commuter service for all New Jersey bus commuters with capacity sufficient to meet New Jersey's future needs.

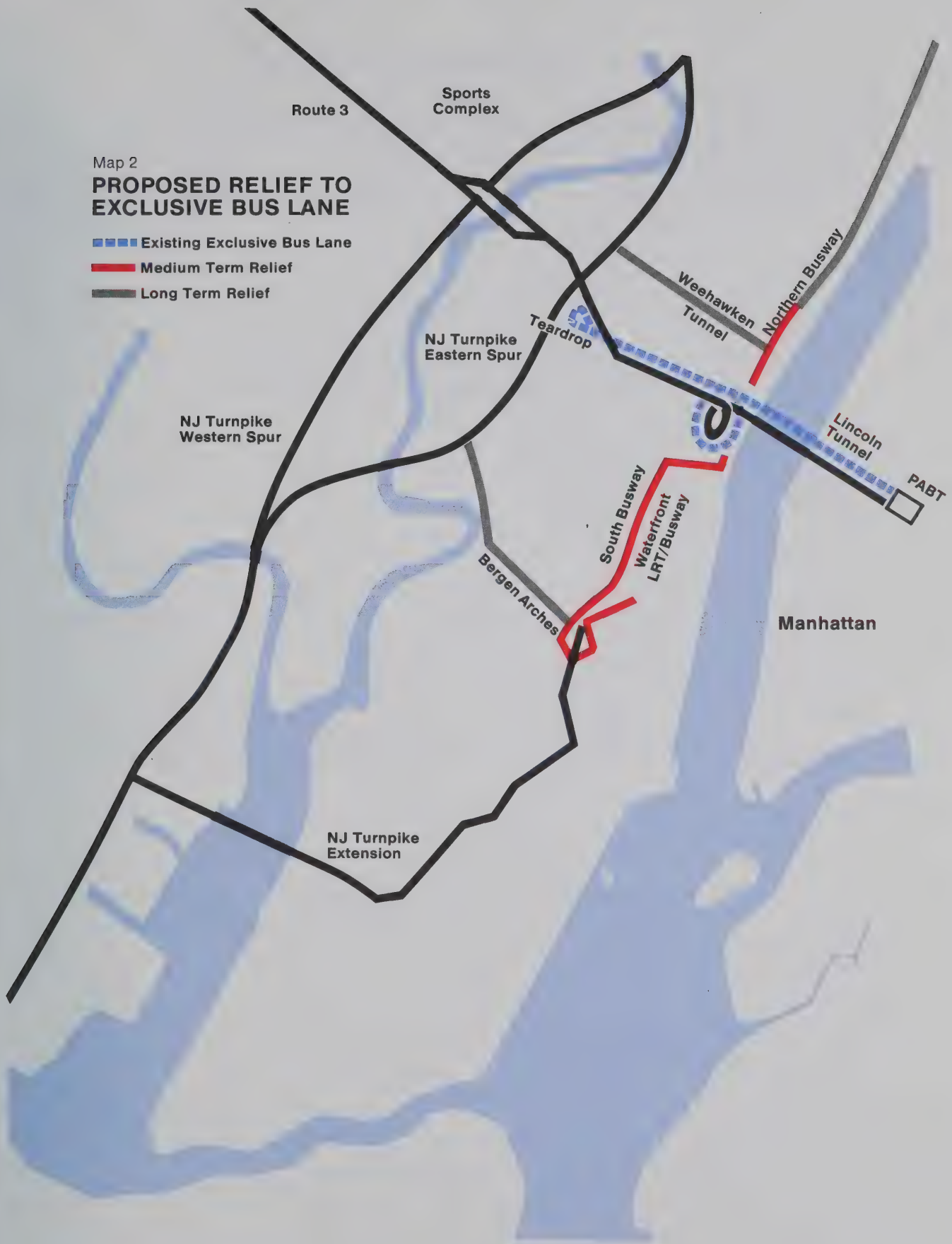
Map 2

PROPOSED RELIEF TO EXCLUSIVE BUS LANE

Existing Exclusive Bus Lane

Medium Term Relief

Long Term Relief



PREFERENTIAL TREATMENT FOR BUSES

There are several ways in which preferential treatment can speed buses and increase their reliability. Constructing ramps for buses to bypass queues and providing bus-only toll lanes allows buses to avoid major traffic congestion at areas such as the Garden State Parkway Raritan Toll plaza, the Turnpike interchange 11 toll plaza, and the interchange between the Parkway and I-80.

TABLE 4

SUMMARY OF BUS RIDERS BENEFITTED THROUGH THE PREFERRED BUS PROJECTS

<u>CORRIDOR</u>	<u>NEW BUS(1) RIDERS</u>	<u>TOTAL BUS(2) RIDERS BENEFITTED</u>
Hudson County	4,600	16,400
Northern Suburbs	13,600	48,000
Central Suburbs	6,500	23,000
Monmouth/Ocean Counties	<u>1,300</u>	<u>4,600</u>
Total Peak Bus Riders Benefitted	26,000	92,000

(1) Bus ridership due to new capacity in bus system

(2) Existing plus new bus riders

CHAPTER VI

A PLAN FOR RAIL INVESTMENTS

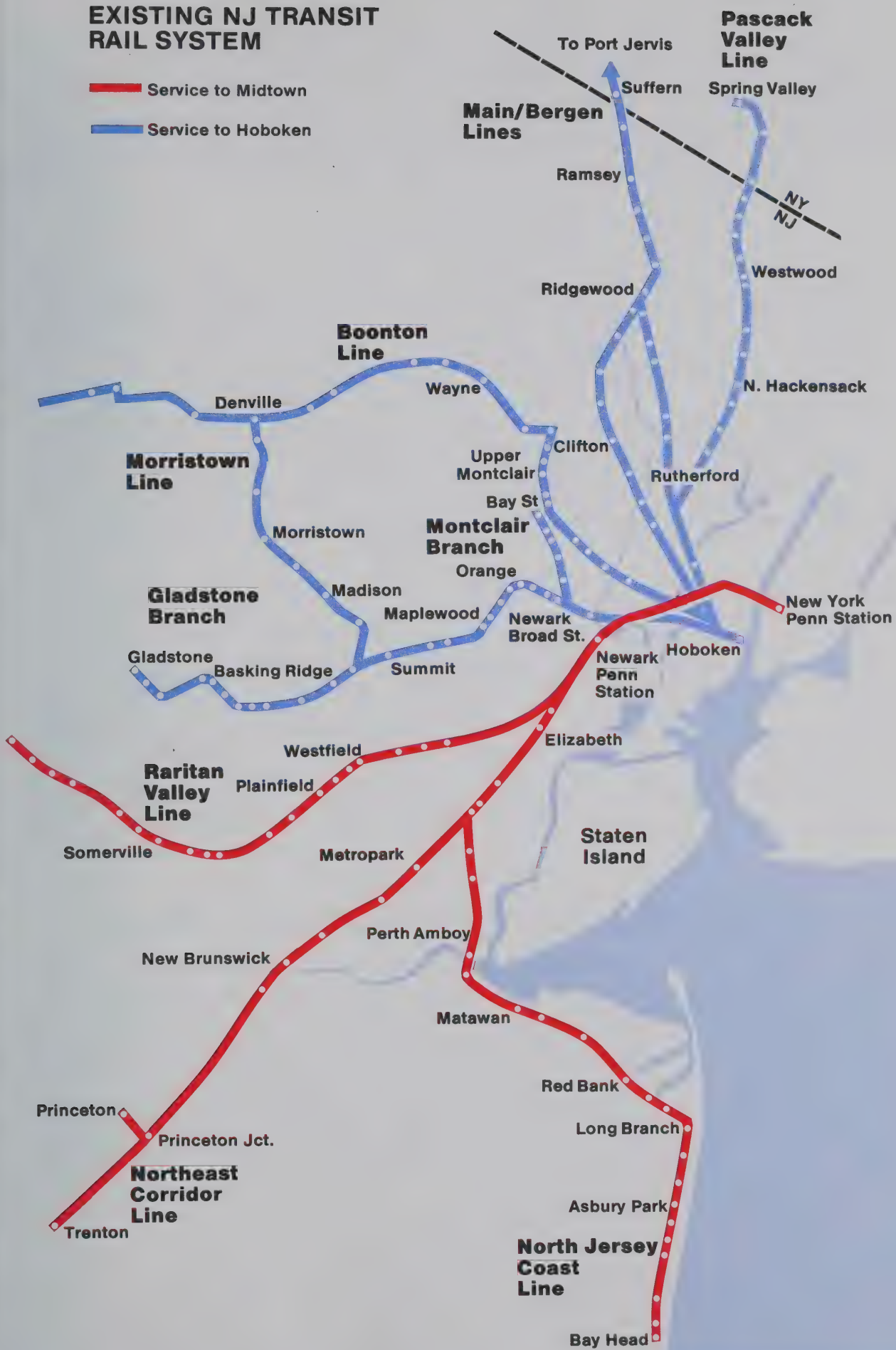
NJ TRANSIT's plan for rail investments envisions restructuring the existing system -- with strategic investments in track improvements and connections, commuter parking, new equipment and passenger transfer stations -- to give travelers on all 10 lines the opportunity for service to midtown. Building on market research suggesting that rail's inherent comfort and reliability score high with commuters, the rail program seeks to build on already substantial prior investments by New Jersey in its rail network to bring these benefits to increasing numbers of commuters as the state grows. Key to this objective is a fundamental expansion of the actual train and passenger-handling capacity of Penn Station New York from 20 up to 30 trains in the peak hour.

The current northern New Jersey commuter rail network offers service to midtown Manhattan on three of its 10 lines -- the North Jersey Coast Line, the Northeast Corridor and the Raritan Valley; other lines, inherited from the Erie-Lackawanna system, terminate in New Jersey at the Hudson River Waterfront in Hoboken, where rail passengers must transfer to PATH for final connections to midtown or downtown Manhattan. Map 3 illustrates this existing rail system.

The Penn Station capacity improvement program will include a substantial upgrading of the facility's capability to accommodate New Jersey commuters' needs for reliability, convenience, speed, access and passenger information. The terminal, its platforms and approach tracks have seen no meaningful capacity increase in decades. NJ TRANSIT's proposals could expand by 50% -- up to 30 peak-hour trains -- the terminal's capability to move commuters into and out of Manhattan. Major signal work, track expansion and, most importantly from the rider's point of view, reconstruction of Penn Station terminal itself, are key components of the program. The project will add stairways, new concourses, escalators, better signage and lighting, as well as prepare for eventual automated fare collection. This work will be coordinated with reconstruction of the main waiting areas already planned by Amtrak and the Long Island Rail Road and the construction slated for above the terminal proper by private developers. Every element of the work will be conducted in close coordination with Amtrak, the owner and operator of the terminal, and with the Long Island Railroad, which shares the terminal with NJ TRANSIT and Amtrak, to define a mutually acceptable Penn Station master plan which gives New Jersey the service commuters need.

EXISTING NJ TRANSIT RAIL SYSTEM

- Service to Midtown
- Service to Hoboken



Beyond the basic Penn Station improvements, NJ TRANSIT plans extensions, connections and transfers to bring midtown commuter rail service to virtually all of northern New Jersey. Recognizing that rail investments last for decades, NJ TRANSIT has organized the program to ensure that intra-Jersey travel opportunities are strengthened as well. The specific elements of this program are discussed in the following sections.

THE SECAUCUS TRANSFER



The Secaucus Transfer, a major new transfer station in the Hackensack Meadowlands to be built in conjunction with new commercial development on adjacent property, will serve as a crossroads for northern New Jersey. Passengers from Main, Bergen and Pascack Valley lines will be able to change to Northeast Corridor trains, serving communities from Trenton to New York. The Secaucus Transfer, only a few miles from midtown and downtown Manhattan, the New Jersey Waterfront and downtown Newark, will provide fast and convenient rail service from Bergen and Passaic counties in New Jersey, and from Rockland and Orange counties in New York, to midtown Manhattan, as well as the opportunity for travel to stations on the Northeast Corridor, North Jersey Coast, Raritan Valley and, with the Kearny Connection, Morris & Essex Lines.

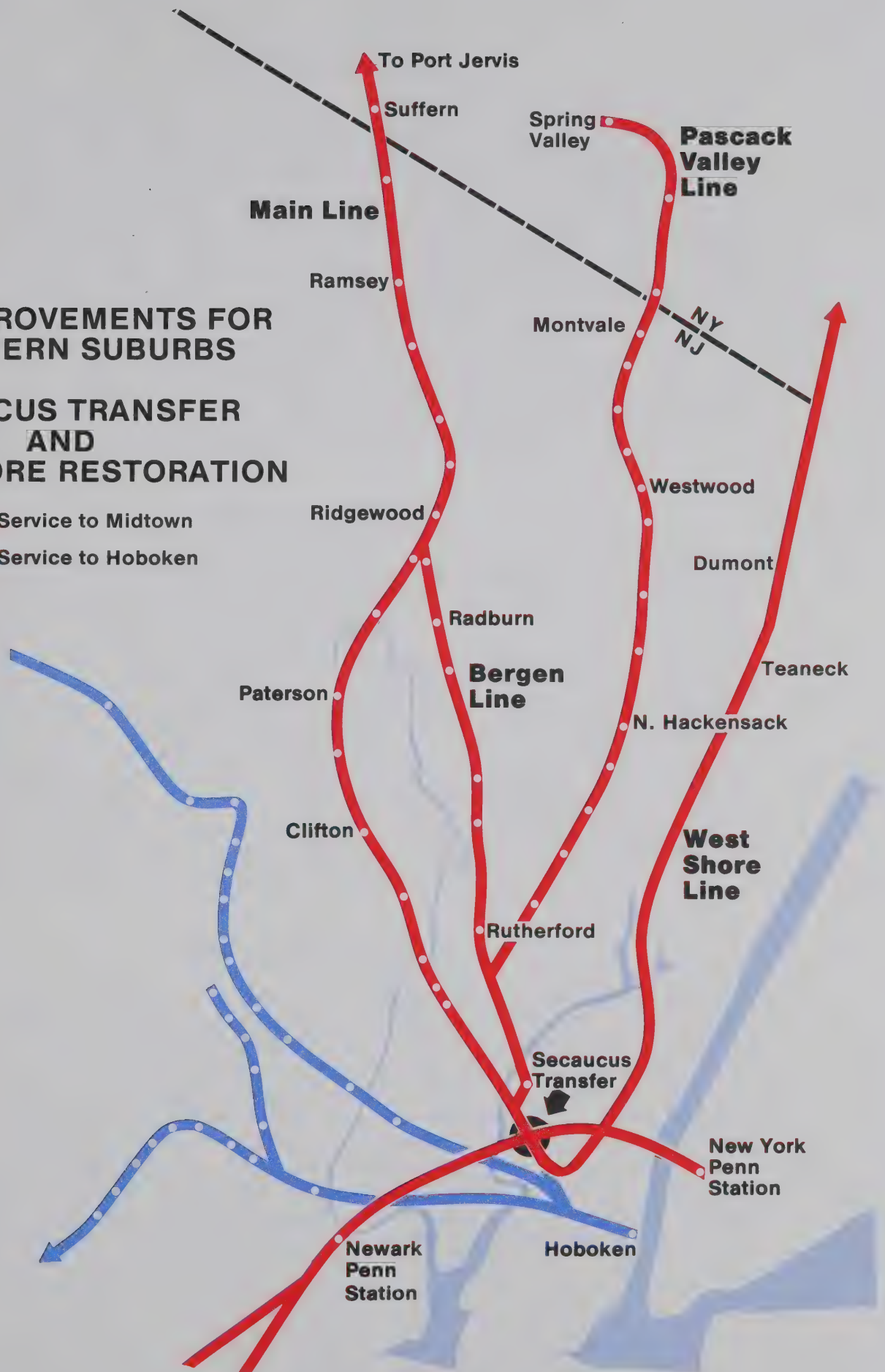
The Transfer station opens up peak and off-peak rail travel opportunities now only possible by car. The Transfer will avoid a time-consuming and circuitous midtown routing via PATH in Hoboken, saving time, increasing convenience, and improving the frequency and availability of commuter rail services to New Jersey commuters. The Transfer's unique location would permit extension of rail service to the Meadowlands Sports Complex and will serve as a central Meadowlands transit hub, for 10 northern New Jersey counties. The Secaucus Transfer will create a New Jersey crossroads, efficient to operate and with the potential for a private/public funding partnership encouraging Meadowlands development. Map 4 illustrates the rail system with a Secaucus Transfer and the restored West Shore commuter rail line.

WEST SHORE COMMUTER RAIL RESTORATION VIA THE SECAUCUS TRANSFER

The West Shore project will restore rail service, last operated in 1959, for eastern Bergen and Rockland county commuters traveling to midtown and lower Manhattan, saving time and increasing reliability. Bringing the West Shore service to the Secaucus Transfer will link eastern Bergen County with the Northeast Corridor, North Jersey Coast, Raritan Valley and with the Kearny Connection, the Morris & Essex lines, opening travel opportunities now only available by car. Service may also be provided to Hoboken, offering a choice between the PATH system and the planned Hoboken ferry for final connections to lower Manhattan.

Map 4
**RAIL IMPROVEMENTS FOR
NORTHERN SUBURBS**
**SECAUCUS TRANSFER
AND
WEST SHORE RESTORATION**

 Service to Midtown
 Service to Hoboken



THE KEARNY CONNECTION

The Kearny Connection will allow NJ TRANSIT to offer direct midtown commuter rail service to travelers in Morris, Essex, Union and Somerset counties, avoiding a PATH transfer in Hoboken, shortening travel time and increasing convenience. Market research findings indicate that the difficult nature of the PATH transfer at Hoboken is an impediment to transit use by some commuters, and that direct commuter rail service would be "ideal" from a passenger convenience and service quality viewpoint. The project will permit a rich schedule of Morris & Essex Lines off-peak service to midtown Manhattan as well, offering shoppers and other travelers the option to leave their cars at home and take advantage of full-day service. The Kearny project will link Newark's Broad Street station directly with New York's Penn Station, giving Newark a second major commuter hub and supporting already pronounced downtown growth and development. Map 5 shows the rail system with a Kearny Connection and Montclair Connection.

MONTCLAIR CONNECTION

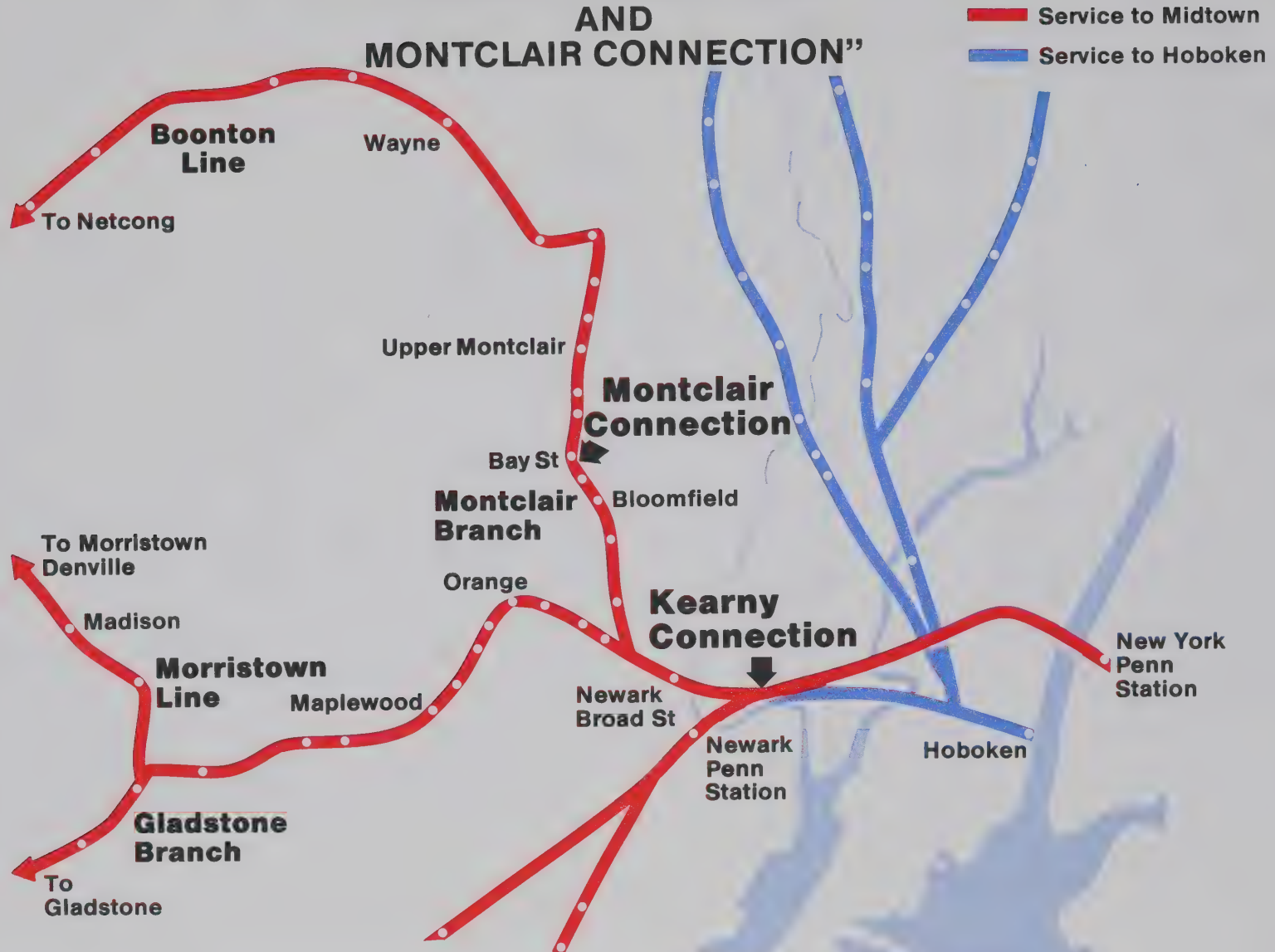
The Montclair Connection will consolidate two relatively weak rail lines, reducing costs and enabling additional off-peak service on the Boonton Line while extending the benefits of the Kearny Connection to travelers in northern Essex and suburban Passaic counties. The project will, in combination with the Kearny Connection, give Boonton Line travelers to midtown Manhattan rail service via downtown Newark's Broad Street station, avoiding a slow and inconvenient PATH transfer in Hoboken that impacts thousands of midtown Manhattan-bound commuters. Map 5 illustrates the efficiency gained by the Kearny and Montclair Connection projects. The Montclair connection also frees up nine miles of the Boonton Line for other transportation uses, including its possible use as part of the South Busway feeder system from the main line of the New Jersey Turnpike through the Bergen Arches, as discussed earlier under Bus Plans.

HUNTER TOWER CONNECTION

A significant service and reliability component of the Penn Station capacity work described earlier includes modernizing the track connection between the Raritan Valley Line and the Northeast Corridor. This investment will eliminate delay, inconvenience and unreliability for thousands of Raritan Valley line travelers, by speeding service and reducing conflicts with Conrail freight trains and other Northeast Corridor commuter trains approaching Newark Penn Station. The improvements -- including track, switch and signal work -- will allow travelers now delayed as trains are held to speeds as low as 15 miles per hour to ride through the 3/4-mile connection at full speed, saving time, sharpening schedules and eliminating frustration due to unpredictable delays.

RAIL IMPROVEMENTS FOR WESTERN SUBURBS

KEARNY CONNECTION AND MONTCLAIR CONNECTION"



NORTHEAST CORRIDOR & NORTH JERSEY COAST LINE SERVICE EXPANSION

Rapid and continuing rail ridership growth from Monmouth, Ocean, Middlesex and Mercer counties requires increased commuter parking and additional seating on both the Northeast Corridor and the North Jersey Coast Line. Additional trains, new stations, additional parking lots and garages and associated road improvements are all planned in concert with the acquisition of additional -- and possibly higher capacity -- commuter coaches.

MONMOUTH/OCEAN/EASTERN MIDDLESEX RAIL IMPROVEMENTS

In addition to expanded Northeast Corridor and North Jersey Coast Line service, new Monmouth/Ocean/Eastern Middlesex county rail services will be advanced which bring passenger services closer to emerging high-growth areas. Several options are under study with recommendations anticipated soon.

This package of investments will modernize and transform northern New Jersey's commuter rail services. Table 5 quantifies the benefits of these projects for New Jersey travelers and Map 6 shows how the rail system will appear following implementation of this program.

TABLE 5

**SUMMARY OF RAIL RIDERS BENEFITTED
THROUGH THE PREFERRED RAIL PROJECTS*
(new and existing riders)**

<u>PROJECT</u>	<u>PEAK PERIOD RIDERS BENEFITTED</u>	<u>OFF-PEAK AND INTRA-NJ NEW RIDERS</u>	<u>TOTAL RIDERS BENEFITTED</u>
Secaucus Transfer/ West Shore Transfer	11,800	6,000	17,300
Kearny Connection/ Montclair Connection	6,200	3,500	9,700
NEC Expansion	3,100	2,500	5,600
NJCL Expansion	1,600	1,000	2,600
Monmouth/Ocean	<u>2,700</u>	<u>750</u>	<u>3,450</u>
Rail Projects	25,400	13,750	39,150

* These numbers do not account for demand which is generated from induced development or reverse commuter (westbound a.m.) markets.

Source: NJ TRANSIT

Map 6

PROPOSED NJ TRANSIT RAIL SYSTEM

 Service to Midtown and Hoboken
 Option to be Selected



CHAPTER VII

THE PLAN'S ACHIEVEMENTS: RESULTS FOR NEW JERSEY

By maximizing the capacity of bus and rail terminals and the transit network feeding the terminals, and selecting service investment options from major travel corridors, up to 26,000 more bus riders and 20,000 more rail riders will be accommodated in the peak morning commute period. Further, up to 92,000 morning bus riders will benefit from a more reliable and speedier trip, and 25,000 peak period rail riders will share the benefits of improved rail services. These transit investments will transform commuting in New Jersey and benefit Rockland and Orange counties in New York as well.

NEW JERSEY TRAVEL RENAISSANCE

With these investments it will be possible to:

- Travel to Midtown Manhattan from all 10 rail lines;

With construction of the Kearny Connection, Secaucus Transfer and Montclair Connection, midtown Manhattan's Penn Station will be within easy reach of travelers on every NJ TRANSIT commuter rail line, tapping midtown travel markets in 10 northern New Jersey counties.

- Travel to Newark from all 10 rail lines;

With construction of the Secaucus Transfer and Montclair Connection projects, travelers on the Boonton, Main, Bergen and Pascack Valley lines, will be able to quickly and conveniently reach downtown Newark at either the Broad Street or Newark Penn stations.

- Travel to the Meadowlands from all 10 rail lines;

The same three rail projects that bring midtown Manhattan within easy reach also allow NJ TRANSIT rail riders to access the Meadowlands, with every rail line providing either direct or one-transfer service to the Secaucus Transfer at Allied Junction, a major commercial development planned at the site of the Transfer project, and expected to anchor substantial additional development around the Transfer site.

- Travel to the Hudson River Waterfront from all 10 rail lines.

The Bergen, Main, Pascack Valley, Boonton, and Morris and Essex lines all bring travelers to Hoboken now, and will continue to do so with implementation of this proposed investment package. In addition, the Waterfront Connection will allow travelers on the North Jersey Coast, Northeast Corridor and Raritan Valley lines to travel directly to Hoboken at the center of the major Waterfront development, where connections to PATH and to the planned Waterfront transit system will be possible to reach final destinations.

The restoration of West Shore rail service and new service in Monmouth and Ocean counties adds service which can also benefit from the new intra-state travel opportunities.

New travel opportunities abound -- from Bergen County to Middlesex and Mercer counties, from Essex, Union and Somerset counties to the Waterfront, and from Monmouth County to the Meadowlands -- increasing mobility and travel choices for New Jerseyans. The ability of some of these projects to directly support development allows the state a major opportunity to constructively manage growth. The best example is the Secaucus Transfer which has the potential for a joint public/private venture in the creation of a transfer station, at the crossroads of the Meadowlands. The package of connections, transfers, and busway improvements also greatly improves the attractiveness of off-peak travel, potentially contributing some 14,000 more daily riders with off-peak travel needs and with New Jersey destinations.

CHAPTER VIII

IMPLEMENTING THE PLANS: THE NEXT STEPS

An implementation plan for these major transportation investments requires environmental analysis, continued advisory committee participation, municipal cooperation, funding availability, provision for parking access, and engineering design work, all of which are critical to the development of realistic and practical implementation schedules.

ENSURING THE BEST RESULTS

The process of public participation does not stop now that the agency has made its recommendations, which the NJ TRANSIT Board of Directors now is evaluating. Ongoing design work and environmental documentation requires public discussion at various stages of progress. Each project will continue to be reviewed by appropriate Advisory Committees, continuing the valuable dialogue which has occurred during the early planning work. Further, in determining potential funding sources, requirements for formal public hearings and associated agency reviews will be followed.

THE TRANSIT IMPROVEMENT TIMETABLE

Advancing these projects will take time. Many elements must be mutually acceptable to other agencies. Technical work is ongoing to complete engineering design. Parking spaces must be designed and built to coincide with the project completions. Preliminary estimates suggest completion of many of the rail projects in the early to mid-1990's. Bus projects are targeted earlier in the decade. A staged approach to design and construction of projects will be taken to ensure attention to detail.

Full engineering and design efforts for these transportation investments will confirm costs and provide more detailed construction schedules. Currently this package of improvements, which brings North Jersey's transportation network up to date and positioned for the 21st Century, will cost in the order of \$1.2 billion dollars over the next decade.

FUNDING PARTNERS

The renewal of the Transportation Trust Fund is absolutely vital to NJ TRANSIT, and to the successful completion of the long range transportation investments envisioned in this report. There is no question about the benefits accruing to the public transit commuter from these investments. There is also no question that the improvement in efficiency and effectiveness in the delivery of public transit services is worthy of significant state support. By presenting this program of identified priorities, NJ TRANSIT seeks to gain broad-based support for a transit vision in New Jersey.

Recognizing the magnitude of investment required to implement these plans over the next decade, when coupled with continuing renewal and replacement of basic infrastructure, a concerted effort to tap all available funding sources is called for beyond the renewal of the Transportation Trust Fund. As a result of the strong support received from the Urban Mass Transportation Administration (UMTA) relating to the technical aspects of this plan, NJ TRANSIT anticipates a favorable response when funding requests are submitted, and will actively pursue all possible federal funding sources. (A copy of UMTA correspondence regarding this planning program is attached as Appendix B.)

Every opportunity for private sector funding is being explored in connection with the planning program, with Allied Junction development interests committing substantially toward the Secaucus Transfer Project. Any public/private joint venture greatly increases the attractiveness of a project and, more importantly, increases the likelihood of success by providing added benefits to transit riders.

NJ TRANSIT is working with the Port Authority to establish projects, such as the Waterfront Connection, which will be eligible for funding from various Port Authority sources, including the Fund for Regional Development and Infrastructure Bank Funds.

Another clear beneficiary and financial participant in the program will be the New York Metropolitan Transportation Authority's Metro-North commuter railroad, which through the Secaucus Transfer and West Shore projects, will significantly gain service improvement for its Rockland and Orange County communities and commuters.

LOOKING TO THE FUTURE

These plans maximize capacity and handle the growth that will occur through 2000, but most importantly, the transportation network will be moved into the 21st Century, from a network built to meet travel needs of another era. The investment will generate some 100,000 person-years of work over a decade of design and construction.

By committing to these investments, New Jersey can capitalize on current economic growth and increase the carrying capacity of the transportation network, positioning transit to be more responsive to changes in the future and continue to be a catalyst for and partner in the state's ongoing development.

THE NEXT STEPS

Over the next several months, NJ TRANSIT will work to develop mutually acceptable agreements with sister agencies; launch the engineering and design phases of each project; establish construction schedules; continue advisory committee consultation; tackle the parking requirements associated with existing and new services; pursue all opportunities to secure renewal of the Transportation Trust Fund; and seek third-party and private sector contributions toward as many projects as possible.

The recommendations for transit improvements described in this report conclude this phase of the planning program which focused on northern New Jersey's transit needs. NJ TRANSIT will advance implementation of these projects as outlined above. Planning efforts, however, will next be launched in South Jersey, using the same comprehensive approach to data collection and analysis. NJ TRANSIT will continue to examine statewide growth to ensure that practical solutions to emerging travel needs continue to be the highest priority.

APPENDIX A

Advisory Committee Membership Lists

Penn Station New York Access Study Advisory Committee

Bus Preferential Treatment Study Advisory Committee

West Shore Rail Study Advisory Committee

**Boonton Line/Montclair Branch Transportation Corridor
Study Advisory Committee**

North Jersey Transit Advisory Committee

PENN STATION NEW YORK ACCESS STUDY
ADVISORY COMMITTEE MEMBERSHIP LIST

Ms. Marcia Bograd
Director, Mass Transportation
League of Women Voters of New Jersey

Mr. Douglas J. Bowen
Vice-President, New Jersey
Association of Railroad Passengers

Mr. Wayne Bradley
Acting Director, Essex County
Department of
Planning & Economic Development

Mr. Thomas Casey
Transportation Coordinator
Bergen County Planning Board

Mr. Richard De Turk
Deputy Commissioner, Orange County
Department of Planning & Development

Ms. Beverly Dolinsky
Executive Director
Metro-North Rail Commuter Council

Mr. Alfred H. Harf
Deputy Assistant Commissioner,
Transportation Planning
and Research
New Jersey Department of Transportation

Mr. Harry Hines
Planning Officer
City of Newark

Mr. Gregory Johnson
Director of Planning
Metropolitan Transportation Authority

Mr. Leo Laaksonen
Director, Mercer County Department of
Planning

Mr. John Lane
Transportation Planner
Hudson County Planning Board

Mr. Donald Linky
New Jersey Business & Industry Association

Mr. Carl Marggraff
Chairman, Transportation Committee
Greater Newark Chamber of Commerce

The Honorable D. Bennett Mazur
Member, Transportation, Communications
and High Technology Committee
Assemblyman, 37th District

Mr. Michael McNally
Vice-President of Planning
Hartz Mountain Industries

Mr. Albert L. Papp, Jr.
Chairman, Lackawanna Coalition

Mr. David Pindar
Chairman, Shore Commuter Coalition

Mr. Boris Pushkarev
Vice President--Research & Planning
Regional Plan Association

Mr. Frank Reilly
Executive Director
Morris County Board of Transportation

Mr. Arthur Reuben
Director, Somerset County Planning Board

Mr. Martin Robins
Director, Planning & Development
Port Authority of New York & New Jersey

Mr. James Rogers
Director of Planning
County of Passaic

Mr. Barnett Rukin
Representative, New Jersey
Motor Bus Association
Shortline, Inc.

Mr. Anthony Scardino, Jr.
Executive Director
Hackensack Meadowlands Development
Commission

Mr. Lawrence Schmidt
Acting Director, Planning Group
New Jersey Department of Environmental
Protection

Mr. Frank Seney
Project Specialist, Office of Business
Advocacy
New Jersey Department of Commerce &
Economic Development

Mr. Clifford Sobel
Manager, Technical Planning
North Jersey Transportation Coordinating
Council

Mr. Leonard Spiegel
Director of Public Transportation
County of Rockland

Ms. Gillian Thomas
Transportation Planner
County of Monmouth

Mr. Richard Theryoung
President, Allied Outdoor Advertising,
Inc.

Mr. Frank Tilley
Vice-Chairman, North Jersey Transit
Advisory Committee

Mr. George Ververides
Planning Director
County of Middlesex

Mr. Ellis Vieser
President, New Jersey Alliance for
Action

Mr. Hiram Walker
Deputy Regional Administrator
Urban Mass Transportation Administration

Ms. Kathleen Wallace
Transportation Planner
Ocean County Planning Board

Mr. Ronald Weening
Transportation Planner
County of Union

Mr. Patrick Witmer
Director of Legislative Affairs
New Jersey State Chamber of Commerce

BUS PREFERENTIAL TREATMENT STUDY
ADVISORY COMMITTEE

Mr. Fred Baer
Project Manager, Midtown Remedies
Port Authority of New York & New Jersey

Ms. Marcia Bograd
Director, Mass Transportation
League of Women Voters of New Jersey

Mr. Thomas Casey
Transportation Coordinator
Bergen County Planning Board

Mr. Robert Dale
Director of Operations
New Jersey Turnpike Authority

Mr. John Dawson
Senior Transportation Planner
Delaware Valley Regional Planning
Commission

Mr. Jay Day
Representative, New Jersey
Motor Bus Association
Rockland Coaches, Inc.

Mr. Jude Depko
Traffic Division
New Jersey Highway Authority

Mr. Clifford Ellis
Regional Design Engineer
New Jersey Department of Transportation

Mr. Samuel Goldsticker
Coordinator, New Jersey Task Force
Committee for Better Transit

Mr. Marion Hall
Project Director
Motor Carrier Liaison Project

Mr. Alfred H. Harf
Deputy Assistant Commissioner,
Transportation Planning and Research
New Jersey Department of Transportation

Mr. Barton Harrison
Chairman, Camden County Planning Board

Mr. Harry L. Hines
Planning Officer
City of Newark

Mr. Martin Hofler
Transportation Manager
Essex County Department of Planning
and Economic Development

Mr. Peter Koelsch
Chairman, Bus Subcommittee
North Jersey Transit Advisory
Committee

Mr. John Lane
Transportation Planner
Hudson County Planning Board

Ms. Barbara Lawrence
Director, New Jersey Office
Regional Plan Association

Mr. Edward Lipiner
Principal Transportation Planner
County of Passaic

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Burlington County Engineer's Office

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Mr. Jack Sadow
Representative, Central New Jersey
Transportation Board

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Acting Director, Planning Group
New Jersey Department of Environmental
Protection

Mr. Robert Scolpino
Director of Planning
Gloucester County Planning Department

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Project Specialist, Office of Business
Advocacy
New Jersey Department of Commerce and
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Manager, Technical Planning
North Jersey Transportation
Coordinating Council

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Transportation Planner
County of Monmouth

Ms. Letitia Thompson
Project Manager--Region II
Urban Mass Transportation Administration

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County of Middlesex

Mr. Ellis Vieser
President, New Jersey Alliance
for Action

Ms. Kathleen Wallace
Transportation Planner
Ocean County Planning Board

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Transportation Planner
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Rockland Coaches

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Metro-North Commuter Railroad

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Retired Executive Director of
Bergen County Transportation Board

Mr. Herman Volk
Director, Governor's Office of
Waterfront Development

Mr. Hiram Walker
Deputy Regional Administrator
Urban Mass Transportation Administration
Region II

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Director, Mass Transportation
League of Women Voters of New Jersey

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Acting Director, Essex County
Department of Planning
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Our Lady of Mount Carmel
Montclair

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NJ Department of Transportation

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Chairman, AD HOC Montclair
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Mayor, Borough of Netcong

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Town Administrator
Town of Boonton

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Executive Director
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Transportation

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Representative, County
Transportation Association

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Port Authority of
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Ms. Suzanne Mack
Secretary
Hudson County

Mr. James Mayor
Monmouth County

Mr. Ronald Monaco
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Mr. John O'Sullivan
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Mr. Arthur Reuben
Second Vice-Chairman
Somerset County

Mr. Frank Tilley
First Vice-Chairman
Bergen County

Mr. Ronald Weening
Union County

Mr. William Wright
Union County

APPENDIX B

UMTA Letter Regarding Planning Program



U.S. Department
of Transportation

Urban Mass
Transportation
Administration

The Administrator

400 Seventh St., S.W.
Washington, D.C. 20590

MAY 29 1987

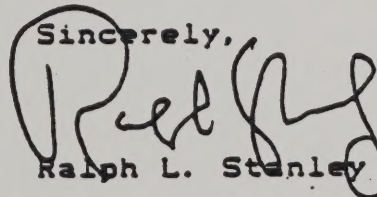
Mr. Jerome Premo
Executive Director
New Jersey Transit
McCarter Highway and Market Street
P.O. Box 10009
Newark, New Jersey 07101

Dear Mr. Premo:

I would like to thank you for the superb presentation New Jersey Transit made to my staff on Thursday, May 14, on your new capital improvement planning process and proposed program. My staff was impressed with both the technical details of the process and the professional manner in which it was presented. I must commend New Jersey Transit for taking on an extremely complex problem, developing a comprehensive and sound analysis approach and presenting the results in a clear and understandable fashion. They deserve the highest praise and I hope you will extend my congratulations to them.

I also want to assure you that the Urban Mass Transportation Administration looks forward to working closely with New Jersey Transit as the projects you ultimately select proceed through their development process into implementation.

Sincerely,

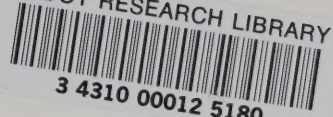


Ralph L. Stanley

ACKNOWLEDGEMENTS

The plan represents the administration of work by major administrative departments and
THANKS, as well as the New Jersey Department of Transportation, The Port
Authority of New York and New Jersey, and all those who served on the project
advisory committee.

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ACKNOWLEDGEMENTS

The plan represents the culmination of work by many individuals throughout NJ TRANSIT, as well as the New Jersey Department of Transportation, The Port Authority of New York and New Jersey and all those who served on our project advisory committees.

